
COURSE REQUIREMENTS:

Participation: Students are expected to attend and participate in class.
Participation will count 25% of your grade.

Tests
Midterm—25% of your grade, multiple choice and short answer
Final—50% of your grade multiple choice and short answer

Cognitive Neuroscience is a highly interdisciplinary field focused on the computations of brain tissue that arise in mental states and cognitive processes. It draws basic data and theory from Cognitive Psychology, Neuroscience, Linguistics, and Computational modeling while synthesizing these fields into an novel integrative field. New tools such as neuroimaging methods, fMRI, EEG etc.. as well as computational models are used to explore and elucidate the nature of the cognition and perceptual processing as they may be implemented in the brain. In this course we will study these basic experimental and theoretical results that define our understanding of brain function and structure as they relate to mental states, perceptual and cognitive processing.

Class Topics (week of):
01/21: Introduction. no reading
01/28: Overview Chapter 1
02/04  Neurons: Units of Computation Chapter 2
02/11: Neuroimaging Tools Chapter 2.1
02/18: The Brain Chapter 2
02/25: Visual Processing I Chapter 3
03/04: Visual Processing II Object Recognition Chapter 5, 9
03/11: REVIEW MIDTERM
03/13: MIDTERM
03/18 SPRING BREAK
03/25 Attention & Consciousness Chapter 6
04/01 Learning & Memory Chapter 10 13
04/08 Thinking & Cognition Chapter 11 12
04/15 Language Chapter 18
04/22 Executive Control & Action Chapter 14 15
04/29 Sleep Chapter 19
05/01 REVIEW
Date TBA FINAL